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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/701,833

11/05/2003

Elmer G. Fridrich

EF-101F

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03/19/2007

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EXAMINER

SMITH, NICHOLAS A

ART UNIT

PAPER NUMBER

1742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/701,833

Applicant(s)

FRIDRICH, ELMER G.

Examiner

Nicholas A. Smith

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 5 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/12/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Status of Claims

1. Claims 1-12 remain for examination.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Tezuka et al. (US Patent 5,660,708).
4. In regards to claim(s) 1, Tezuka et al. discloses a method for electrolyzing a continuous length of metal comprising: firstly passing the length of metal through electrolysis fluid contained in a first bath that also contains a first electrode connected to a first pole of a power supply; secondly passing the length of metal through electrolysis fluid contained in a second bath that also contains a second electrode connected to a second pole, opposite to the first pole, of the power supply; and using the length of metal as an electrical conductor for completing the electrical circuit between the electrolysis fluid of the first bath and the electrolysis fluid of the second bath (col. 4, line 35 to col. 5, line 34).

5. In regards to claim(s) 2, Tezuka et al. discloses multiple baths wherein the length of metal passes below a fluid level (Figure 1). Wherein Tezuka et al. does not specifically disclose a plurality of seals between each vessel (Figure 1, 4-10), Tezuka et al.'s method must contain a plurality of seals between each vessel (Figure 1, 4-10) in order to contain the electrolytic polishing solution within the vessels to allow processing. If each vessel (4-10) were not sealed, then Tezuka et al.'s invention would not operate. Furthermore, the plurality of seals would allow passage of the length of metal while limiting fluid loss (Figure 1).

6. In regards to claim(s) 3, Tezuka et al. discloses the length of metal remaining immersed in the electrolytic polishing solution (Figure 1, col. 4, line 60 to col. 5, line 3).

7. In regards to claim(s) 4, Tezuka et al. discloses an AC power supply (col. 3, lines 37- 50 and col. 4, line 60 to col. 5, line 3).

8. In regards to claim(s) 5, Tezuka et al. discloses moving the length of metal in one direction through the respective baths (Figure 1; col. 4, lines 45-50).

9. In regards to claim(s) 6, Tezuka et al. discloses a two-bath electrolysis line for performing electrolysis on a continuous length of metal, the electrolysis line comprising: a first bath containing electrolysis fluid filled to a fluid level, and a first electrode, the first electrode being connected to a first pole of a power supply; a second bath containing electrolysis fluid filled to a fluid level, and a second electrode, the second electrode being connected to a second pole, opposite to the first pole, of the power supply; a conveyance path such that the length of metal passes first through the electrolysis fluid in the first bath, and second through the electrolysis fluid in the second bath; and a

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conductor of electrical current between the electrolysis fluid in the first bath and the electrolysis fluid in the second bath, the conductor being the length of metal (col. 4, line 35 to col. 5, line 34).

10. In regards to claim(s) 7, see reasons stated above in paragraphs 5-6.

11. In regards to claim(s) 11-12, see reasons stated above in paragraphs 7-8.

12. Claims 1-3, 5-7 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Qiao (US Patent 7,169,286).

13. In regards to claim(s) 1, Qiao discloses a method for electrolyzing a continuous length of metal comprising: firstly passing the length of metal through electrolysis fluid contained in a first bath that also contains a first electrode connected to a first pole of a power supply; secondly passing the length of metal through electrolysis fluid contained in a second bath that also contains a second electrode connected to a second pole, opposite to the first pole, of the power supply; and using the length of metal as an electrical conductor for completing the electrical circuit between the electrolysis fluid of the first bath and the electrolysis fluid of the second bath (Figure 1A, col. 4, line 43-57, col. 5, line 4 to col. 6, line 15).

14. In regards to claim(s) 2, Qiao discloses multiple baths wherein the length of metal passes below a fluid level (Figure 1A). Wherein Qiao does not specifically disclose a plurality of seals between each vessel (Figure 1A, col. 4, line 43-57), Qiao's method must contain a plurality of seals between each vessel (Figure 1A, col. 4, line 43-57) in order to contain the electrolytic polishing solution within the vessels to allow processing. If each vessel (Figure 1A, col. 4, line 43-57) were not sealed, then Qiao's

invention would not operate. Furthermore, the plurality of seals would allow passage of the length of metal while limiting fluid loss (Figure 1A).

15. In regards to claim(s) 3, Qiao discloses the length of metal remaining immersed in the electrolytic polishing solution (Figure 1A, col. 4, line 43-57, claims 1 and 13).

16. In regards to claim(s) 5, Qiao discloses moving the length of metal in one direction through the respective baths (Figure 1A; col. 4, lines 43-57).

17. In regards to claim(s) 6, Qiao discloses a two-bath electrolysis line for performing electrolysis on a continuous length of metal, the electrolysis line comprising: a first bath containing electrolysis fluid filled to a fluid level, and a first electrode, the first electrode being connected to a first pole of a power supply; a second bath containing electrolysis fluid filled to a fluid level, and a second electrode, the second electrode being connected to a second pole, opposite to the first pole, of the power supply; a conveyance path such that the length of metal passes first through the electrolysis fluid in the first bath, and second through the electrolysis fluid in the second bath; and a conductor of electrical current between the electrolysis fluid in the first bath and the electrolysis fluid in the second bath, the conductor being the length of metal (Figure 1A, col. 4, line 43-57, col. 5, line 4 to col. 6, line 15).

18. In regards to claim(s) 7, see reasons stated above in paragraphs 14-15.

In regards to claim(s) 12, see reasons stated above in paragraphs 16.

### ***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Tezuka et al. in view of H & F Manufacturing Corporation

(<http://www.hgmfgcorp.com/accessories/grommet.html>).

21. In regards to claim(s) 8-10, Tezuka et al. discloses seals connecting baths and abutting ends of each bath (Fig.1 and paragraphs 5-6 above).

22. However, Tezuka et al. does not specifically disclose grommet-type seals mounted within holes of the bath vessels

23. H & F Manf. Corp. discloses grommet seals (p. 1). It would have been obvious to one of ordinary skill in the art to modify Tezuka et al.'s seals with H & F Manf. Corp.'s grommet seals because grommet seals fasteners are a compression fastener used in side-up applications with fiberglass, plastic or composite sheeting (H & F Manf. Corp., p. 1) Fiberglass, plastic or composite are materials of which electrolytic vessels are typical made.

24. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Qiao in view of H & F Manufacturing Corporation.

25. In regards to claim(s) 8-10, Qiao discloses seals connecting baths and abutting ends of each bath (Fig.1A and paragraphs 14-15 above).

26. However, Qiao. does not specifically disclose grommet-type seals mounted within holes of the bath vessels,

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27. H & F Manf. Corp. discloses grommet seals (p. 1). It would have been obvious to one of ordinary skill in the art to modify Qiao's seals with H & F Manf. Corp.'s grommet seals because grommet seals fasteners are a compression fastener used in side-up applications with fiberglass, plastic or composite sheeting (H & F Manf. Corp., p. 1) Fiberglass, plastic or composite are materials of which electrolytic vessels are typical made.

### ***Conclusion***

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas A. Smith whose telephone number is (571)-272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

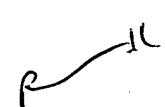
29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571)-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NAS

  
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